

Policy & Procedure (P&P)

Policy Title :

Storage of Blood and Blood Components

Department	Index No.	Scope
Laboratory & Blood Bank	LAB-099	Blood Bank Staff
Issue Date	Revision NO	Effective Date
05/6/1432	2	23/08/1440
Review Due Date	Related Standard NO.	Page Number#
23/08/1442	CBAHI (LB . 42.43.44.45.46)	4

01. Policy:

01.1. Blood (and blood products) must be stored only in refrigerators (and freezers) that, by design and capacity, maintain the required storage temperatures of 1-6°C for blood, <18°C or less for FFP and Cryoprecipitate and 20-24 for platelets throughout their interior space. There must be a system to monitor temperatures continuously and record them at least every 4 hours, and an alarm system with an audible signal that activates before blood reaches unacceptable storage temperatures.

02. Definition:

N/A

03. Purpose :

03.1. Storage of blood and blood components at a suitable temperature to maintain their viability and function well as minimizing bacterial proliferation and storage lesion.

04. Procedure :

04.1. Refrigerators for storing blood should contain only blood, blood components, reagents for blood bank tests and blood samples from patients and donors.

04.2. Clearly designated and segregated areas are needed for:

04.2.1. Unscreened blood



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- 04.2.2. Screened blood
- 04.2.3. Crossed-matched blood (reserved blood)
- 04.2.4. Quarantined blood for investigations
- 04.2.5. Unscreened FFP
- 04.2.6. Screened FFP
- 04.2.7. Unscreened platelets
- 04.2.8. Screened platelets
- 04.3. Interiors should be clean, adequately lighted, and well organized.
- 04.4. The temperature in all areas of the refrigerator must be maintained between 1°C and 6°C. All refrigerators in which blood is stored must have recording thermometers and audible alarms to warn when abnormal temperatures occur. Temperature charts must be dated and any temperature variation from normal should be explained by writing on the chart.
- 04.5. The refrigerator should contain internal thermometer for monitoring temperatures. That should be recorded daily.
- 04.6. The audible alarm of any refrigerator in which blood is stored should be tested according to the "Alarm Check" procedure and results recorded.
- 04.7. Blood should not remain at room temperature unnecessarily. During routine handling of the blood, ensure that it is kept out of the refrigerator only for short periods of time as possible.
- 04.8. When a refrigerator alarm goes off, observe the following procedures: (Determine if the alarm is due to a power failure or if a malfunction of the refrigerator is occurring. Call facilities and explain the problem which must be corrected immediately. Check the following refrigerators and assure that they are monitored and working properly in case the blood should need to be transferred).
- 04.9. If a refrigerator in which blood is stored reach 6°C, transfer the blood to ensure maximum shelf life, evaluate blood for adverse effects and document corrective action taken.
- 04.10. Frozen components must be stored at < -18°C and preferably -30°C or less. The freezer must have a recording thermometer and the internal thermometer. When the power to the freezer is shut off or a malfunction occurs, contact facilities. Prepare to transfer components to another monitored

freezer, if necessary. Evaluate plasma for adverse effects and document corrective action taken.

04.11. Platelet concentrates should be stored at room temperatures of 20 - 24°C for up to 5 days.

Platelets require gentle, continuous agitation during storage because stationary platelets display

in

Blood component	Temperature	Expiry date
PRBCs	1-6	42 days if added SAGM
Whole blood	1-6	21 days if CPD 35 days if CPD-A1
Platelets	20-24	5 days
FFP	less than -18	1 year
CRYOPRECIPITATE	less than -18	1 year

increased
lactate
production
and a decrease
pH.

06. RESPONSIBILITY

06.1. Blood Bank Staff of Al-Qunfudah General Hospital.

07. EQUIPMENT AND FORMS::

07.1. Temperature checklist

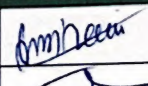

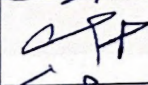
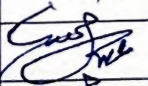
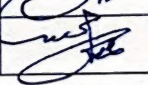
08. Attachment :

N/A

09. Reference

- 09.1. Clinical Laboratory Management for Clinical Laboratory Scientist.
- 09.2. Technical Manual of the American Association of Blood Banks.

Preparation , Reviewing & Approval Box

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